colored and otherwise damaged.—G. H. Willson, District

Portland, Oreg., forecast district.—October was a remarkably dry month in this district. It was not until near its close that general rains occurred, and they did not extend into southern Idaho. During the long dry period, low pressure areas were mostly of the Alberta type, with occasionally one of the South Pacific or Colorado type. They passed eastward either too far north, or too far south to influence the weather in this district, which was controlled for the most part by high pressure areas.

Heavy frosts formed on the 4th, 5th, and 6th, and they brought the growing season to a close, except near the coast. These frosts were predicted 24 hours in advance of their occurrence. Frost warnings were also issued on the 17th, 18th, and 24th. The first two were verified, but the one issued on the 24th was a failure, owing to an unexpected fall in pressure which was attended by

a rise in temperature.

During the dry spell there were several days with east winds which dried the soil very rapidly. Forest fires were numerous in logged off sections, but they caused very little damage to green timber. The atmosphere for many days was disagreeably smoky, and the soil was too hard to permit of the usual amount of fall plowing

and seeding being done.

The first North Pacific storm made its appearance on the morning of the 28th, and warnings for same were ordered at the entrances to the Strait of Juan de Fuca, and the Gulf of Georgia early that morning, and extended to the remaining stations in this district the evening of the same day. The warnings were continued the next morning at the most exposed stations. The storm of the 28th was followed by another North Pacific storm which required warnings the morning of the 30th, and they were sent to all stations in this district. All the storm warnings were fully verified.

During the night of the 28th the schooner yacht La Viagera was blown ashore at Shannons Point, which is 3 miles from Anacortes, Wash. This vessel was blown 30 miles from her course before going ashore, but no lives were lost. The schooner Grays Harbor, at 12:30 p.m. October 30, lost her tiller (?) during a terrific gale, when she was 6 miles off Grays Harbor bar. She was later picked up by a tug and towed into the harbor at Astoria, Oreg.

E. A. Beals, District Forecaster.

FORECAST DISTRICTS OF THE UNITED STATES.

[Weather Bureau, Washington, Oct. 20, 1916.] Weekly forecast districts.

On resuming its system of weekly forecasts in 1915 the bureau published ¹ a sample weekly forecast with an outline map of the districts into which the United States is divided in preparing those forecasts. To-day there is presented a slight revision of the map of districts for the weekly forecasts together with the detailed description of the districts.

North Atlantic States.—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and eastern New York (the portion of the State east of longitude 76°).

Middle Atlantic States.—Eastern Penusylvania (west of longitude 77° 30'), New Jersey, Delaware, Maryland, District of Columbia, and Virginia.

South Atlantic and East Gulf States .- North Carolina, South Carolina, Florida, Georgia, Alabama, and Mississippi.

West Gulf States.—Louisiana and Texas.
Ohio Valley and Tennessee.—Tennessee, Kentucky, West Virginia, western Pennsylvania (west of longitude 77° 30'), Ohio and Indiana.

Region of Great Lakes.—Western New York (west of longitude 76°), Michigan, and shores of Lake Ontario, Lake Erie, Lake Huron, Lake Michigan, and Lake Superior.

Plains States and Upper and Middle Mississippi Valleys.—Illinois, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Missouri, Kansas, Oklahoma, and Arkansas.

Rocky Mountain and Plateau Regions.-Wyoming, Montana, Idaho, Colorado, New Mexico, Nevada, Utah, and Arizona

Parific States.-Washington, Oregon, and California.

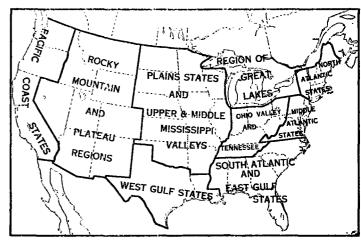


Fig. 1.—Districts used for the weekly forecasts.

Daily forecast districts.

In preparing the daily forecasts the following districts are referred to:

North Atlantic States.—Northern New England (Maine, New Hamp shire, and Vermont), southern New England (Massachusetts, Rhode Island, and Connecticut), and eastern New York (the portion of the State east of longitude 76°).

Middle Atlantic States.—Eastern Pennsylvania (east of longitude 77° 30'), New Jersey, Delaware, Maryland, District of Columbia, and Vir-

South Atlantic States.-North Carolina, South Carolina, Georgia, and eastern Florida (as defined in paragraph 432).

East Gulf States.—Western Florida (as defined in paragraph 432),

Alabama, and Mississippi.

West Gulf States.—Louisiana and Texas.

Ohio Valley and Tennessee.—Kentucky, West Virginia, western Pennsylvania (west of longitude 77° 20'). Ohio, and Indiana.

Lake Region.—Western New York (west of longitude 76°). Michigan, lower Lakes (Ontario and Erie), and upper Lakes (Huron, Michigan, and Superior).

Upper Mississippi and Missouri Valleys.—Illinois, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, and Nebraska.

Central Plains States and Middle Mississippi Valley.—Missouri, Kansas, Oklahoma, and Arkansas.

Northern Rocky Mountain States.—Wyoming, Montana, and Idaho.
Southern Rocky Mountain States.—Colorado and New Mexico.
Southern Plateau States.—Neyada, Utah, and Arizona.

Parific States.-Washington, Oregon, and California.

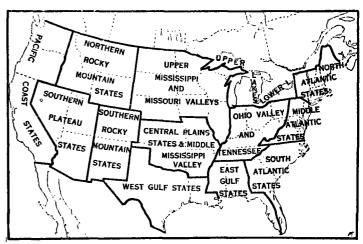


Fig. 2.—Districts used in the daily forecasts.